

Fig. 1
Prior Art

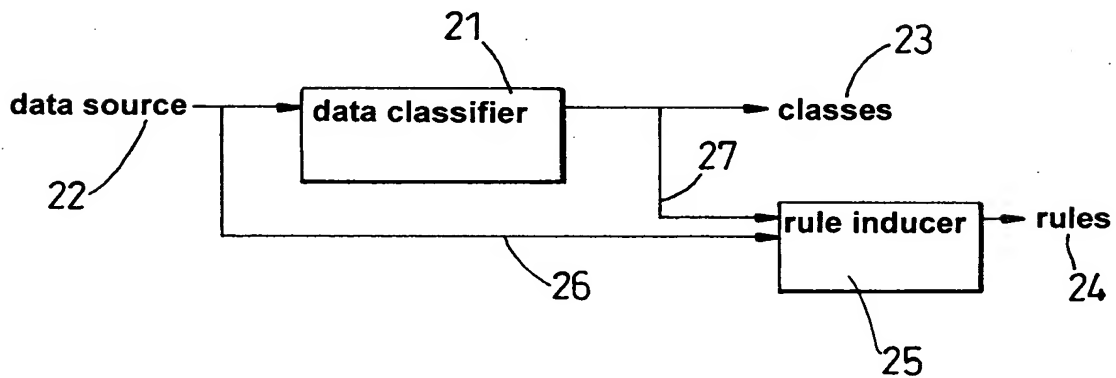


Fig. 2

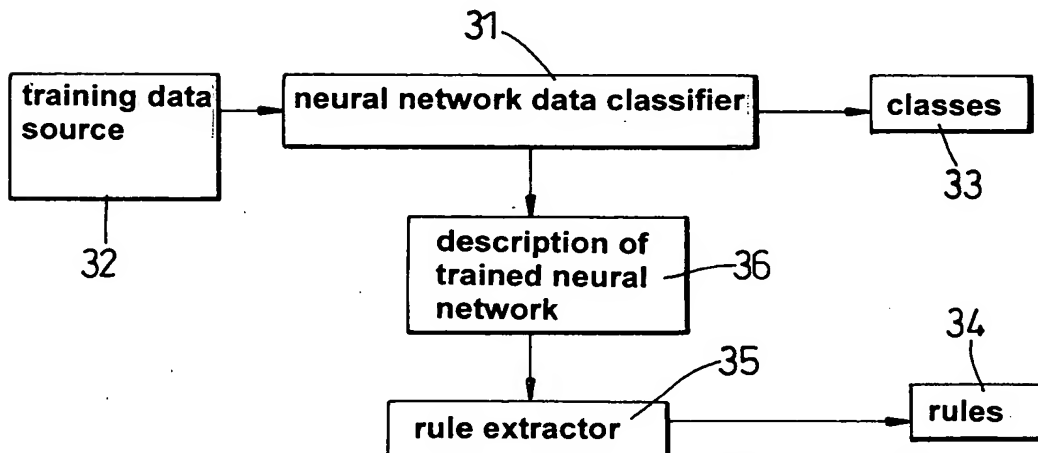


Fig 3
Prior Art

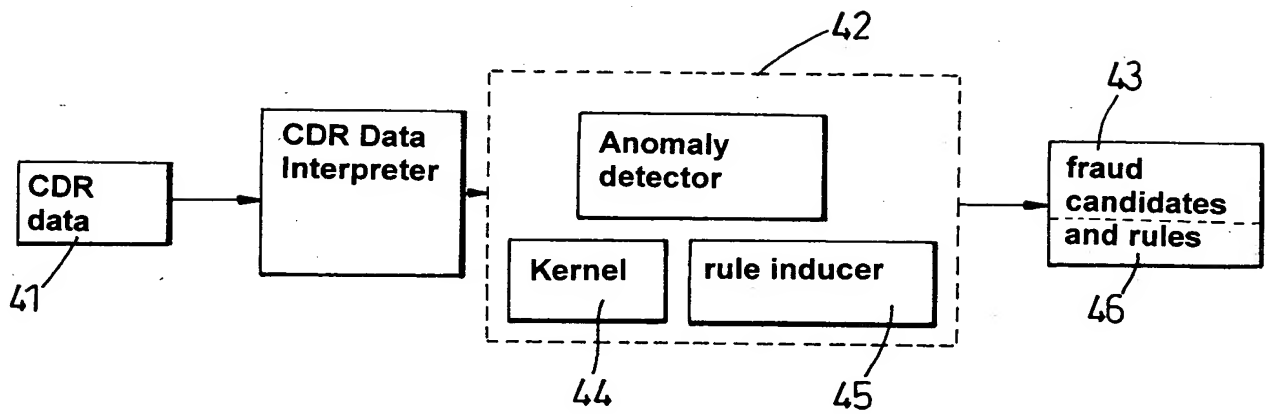


Fig. 4

51	sumOfcountOftimestamp	int	12
52	sumOfsumOfnumpack	int	12
53	sumOfsumOfpcomplete	int	12
54	sumOfsumOflcomplete	int	12
55	sumOfsumOffcomplete	int	12
56	sumOfsumOfbytes	int	12
57	tclass	char	3

Fig. 5

27	27	14	0	192	2753996	c0
4030	99	2524	274	661982	2147483647	c3
1	8	8	0	314	11569353	c0
9	9	0	0	47	20955	c0
5	5	5	0	0	326127173	c0
8	8	6	0	14	11127281	c0
1	1	1	0	1	18532215	c0
12	44	40	0	2262	29605994	c1
58	395	444	0	88	7034626	c1
2	36	36	0	32	101695	c0
27	0	0	0	26	1878290	c0
81	81	14	0	199	172661219	c0
1	4	4	0	14	40322070	c0
634	634	564	0	627	3487708	c1
41	41	41	0	33	4849	c0
27	27	24	0	305	24723757	c0
18	18	0	0	0	0	c0
77	324	289	0	36	666977443	c1
49	224	176	0	51405	178757750	c1
11	11	0	0	77	32102540	c0
48	68	48	0	23	1272385	c0
1	7	6	0	208	106344131	c0
28	0	0	0	17183	1090763248	c2
12	12	3	0	10	180839504	c0
6	6	4	0	6	162413	c0
273	289	266	0	4654	1590489201	c1
10	12	4	0	0	510138960	c0
2040	511	0	0	440	2430247	c1
7685	42047	42410	4879	71747	2147483647	c3
40	25	18	0	40025	1487415336	c2
5	5	2	0	222	90907934	c0
26	27	26	0	44	133511485	c0
3	3	3	0	25	429149	c0
12	0	0	0	31828	2147483647	c2
16	16	13	0	1013	17898735	c0
13	4	2	0	12600	73471296	c2
1	1	1	0	26	99310	c0
5	0	0	0	1417	167006078	c0
14	13	10	0	1	12288015	c0
1	1	1	0	0	0	c0
35	20	14	0	10189	382049867	c2
43	0	0	0	17	424776	c0
3	3	0	0	0	0	c0
207	0	0	0	12	39075223	c0
6	6	5	0	8043	577326084	c2
35	35	26	0	10	55240265	c0
1722	9789	10020	0	215469	1822459461	c3
363	512	534	0	2301	1815469333	c1
2182	3411	1348	0	1646	212119428	c1
1	1	1	0	0	0	c0
198	198	184	0	180	1240857	c1

Fig 6

****RULE FILE****
@
Time: [Fri Sep 27 15:13:28 1996]

Examples: dclass.exs
Algorithm: UNORDERED
Error_Estimate: LAPLACIAN
Threshold: 0.00
Star: 5
@

UNORDERED-RULE-LIST

IF sumOfsumOfnumpack < 42.50
 AND sumOfsumOffcomplete < 4730.00
THEN tclass = c0 [30 0 0 0] } 73

IF sumOfsumOfpcomplete < 112.00
 AND sumOfsumOffcomplete < 319.50
THEN tclass = c0 [30 0 0 0] 74

IF 148.50 < sumOfsumOfnumpack < 6600.00
THEN tclass = c1 [0 9 0 0] 75

IF sumOfcountOftimestamp < 30.00
 AND sumOfsumOfnumpack > 42.50
THEN tclass = c1 [0 1 0 0]

IF sumOfcountOftimestamp < 44.50
 AND sumOfsumOffcomplete > 6348.50
THEN tclass = c2 [0 0 6 0] 76

If sumOfsumOfpcomplete > 1936.00
THEN tclass = c3 [0 0 0 3] 72

(DEFAULT) tclass = c0 [32 10 6 3]

Fig 7

```
#!/opt/corp/contrib/bin/perl -w

sub apply
{
  $n=($sumOfcountOfimestamp,$sumOfsumOfnumpack,$sumOfsumOfpcomplete,
    $sumOfsumOfcomplete,$sumOfsumOfcomplete,$sumOfsumOfbytes) = split(' ',$_);
  if ($n != 6 && $warn)
    { print STDERR "Wrong number of input fields: $n != 6 in line $. \n"; }
  rules: {
    if (($sumOfsumOfnumpack < 42.50) && ($sumOfsumOfcomplete < 4730.00))
      { $tclass = (defined $c{c0}) ? $c{c0} : 'c0'; last rules; } # 30 0 0 0

    if (($sumOfsumOfpcomplete < 112.00) && ($sumOfsumOfcomplete < 319.50))
      { $tclass = (defined $c{c0}) ? $c{c0} : 'c0'; last rules; } # 30 0 0 0

    if ((148.50 < $sumOfsumOfnumpack) && ($sumOfsumOfnumpack < 6600.00))
      { $tclass = (defined $c{c1}) ? $c{c1} : 'c1'; last rules; } # 0 9 0 0

    if (($sumOfcountOfimestamp < 30.00) && ($sumOfsumOfnumpack > 42.50))
      { $tclass = (defined $c{c1}) ? $c{c1} : 'c1'; last rules; } # 0 1 0 0

    if (($sumOfcountOfimestamp < 44.50) && ($sumOfsumOfcomplete > 6348.50))
      { $tclass = (defined $c{c2}) ? $c{c2} : 'c2'; last rules; } # 0 0 6 0

    if (($sumOfsumOfpcomplete > 1936.00))
      { $tclass = (defined $c{c3}) ? $c{c3} : 'c3'; last rules; } # 0 0 0 3

    { $tclass = (defined $c{c0}) ? $c{c0} : 'c0'; last rules; } # 32.10.6.3

  }
  return $tclass;
}

if ($#ARGV < $D) { die "Need some arguments.\n"; }

$warn = 0;
while ($ARGV[0] =~ /^-/ )
{
  if ($ARGV[0] eq "-w") { $warn = 1; }
  if ($ARGV[0] eq "-d")
  {
    open(Desc,$ARGV[0]) ||
      die "Can't find class descriptions: ".$ARGV[0]."\n";
    while (<Desc>)
    {
      chop;
      ($classname,$description) = split(' ',$_);
      $c{$classname}=$description;
    }
    close Desc;
  }
  shift;
}
while (<>)
{
  chop;
  $class = &apply();
  print $_, " ", $class, "\n";
}
```

81

Fig 8